

Vandercook Manual

Operation — Maintenance

Parts List

MODEL NO. 219

SERIAL NO. _____

Always be sure to give both the above Model and Serial Numbers when ordering parts or requesting information about this machine.

NA GRAPHICS
VANDERCOOK
P.O. BOX 467
SILVERTON, CO 81433
PHONE 970/387-0212
FAX 970/387-0127

VANDERCOOK & SONS, INC.

General Offices, Research Laboratory, Demonstration Room & Factory
3601 W. Touhy Ave., Chicago 45, Ill. Phone: ROgers Park 1-2100
Eastern Office & Demonstration Room
323 E. 44th St., New York 17, N.Y. Phone: MUrray Hill 4-4197
Western Office
3156 Wilshire Blvd., Los Angeles 5, Calif. Phone: DUUnkirk 8-9931



DIRECTIONS FOR VANDERCOOK 219 TEST PRESS

INSTALLATION

Place the press on a firm foundation. Clean press - particularly cylinder and bed bearers. Lay a spirit level on the bed and level the bed by means of shims under the four corners of the base. Wood shingles make effective shims for this purpose.

LUBRICATION

Fill all oil holes and cups with S.A.E. 20 Motor Oil. Lubricate vibrator worm on inking system with vaseline. All other bearings are either ball bearings packed in grease or oil impregnated wood bearings that require no attention. Press should be thoroughly oiled once a week or every 50 hours of operation.

CONTROLS

Cylinder Trip

On the new model 219, the Cylinder Trip and Gripper Opening Foot Pedals have been combined. The cylinder will always be tripped until the grippers are opened to feed a sheet. If it is desired to trip the cylinder after a sheet has been fed, use the Manual Cylinder Trip on the side of the press immediately under the bed.

Adjustable Cylinder Travel

A lever is provided near the open end of the press to adjust the cylinder travel. With the lever in the top position, forms or plates up to 25-1/2" long may be printed. With the lever in the lower position, the cylinder travel is shortened and the press will print up to 20". The gripper opening cam on the side of the bed away from the operator has two positions to accommodate the long and short travel. A slight pull will remove the cam.

OPERATION

Motor Driven Ink Drum

When the press is not in use, the motor driven ink drum should always be turned off and the inking system tripped. When the inking system is tripped, the form rollers are free of all contact with the steel distributors. Some provers believe the ink will dry more slowly if the inking system is kept in operation on the ink drum. Just the reverse is true; the ink will dry much faster if the rollers are kept turning and the entire inking system is subjected to needless wear.

Grippers, Sheet Guides and Sheet Rollers

The end sheet guide, nearest the side guide, should always be a trifle in advance of the end guide nearest the operator. This is to prevent misregister because of the sheet dragging against the side guide. When feeding the sheet, the grippers are opened by means of a foot pedal, which makes it easy to maintain accurate register. The grippers open automatically when the cylinder is at the other end of the press, to permit removal of the sheet. The sheet rollers provided should be adjusted so that they run on the margins of the sheet. These sheet rollers are set at a slight angle so that they will be more effective in holding the sheet tight to the tympan in order to avoid wrinkling and slurs.

Cylinder Packing

The cylinder cut is .040". It is very important that the correct amount of packing is carried on the cylinder. Incorrect packing is apt to cause misregister, slurs and wrinkles. Over packing will cause the cylinder to print longer than the form and under packing shorter. The cylinder packing plus the sheet to be printed should be from .002" to .003" over the cylinder bearers. This can be checked with a straight edge. For most work the best cylinder packing consists of all hard manila sheets. Thickness of packing may be adjusted by placing thin sheets next to the cylinder. To change or adjust packing, move cylinder to center of bed (on trip if there is a form or plate on the bed) so that the reel rod is in the up position. Unlatch reel rod ratchet with wrench provided and loosen drawsheet from reel. With left hand grasp packing and as cylinder is returned to feed board, lay packing on feed board. If necessary to change the drawsheet loosen the fillister head screws in the packing clamp gripper bar. Unless overlays are being used only the drawsheet is held by this bar. When moving cylinder to center of bed to secure packing, hold packing in position by smoothing it out with left hand. Be sure packing is tight to cylinder at both sides of gripper edge.

Makeready

The bed bearers on the Vandercook 219 Test Press are type high, .918". The Vandercook Register Plate Base for original photoengravings is .838" thick. Sixteen gauge originals are approximately .0625" thick; .838" plus .0625" equals .9005" which is .0175" short of type high and represents the approximate amount of underlay that must be used. To prove an original with dead metal, lay the plate, loose, on two underlay sheets of combined thickness to bring plate up to slightly less than type high. Take a proof on the stock to be used. The two underlay sheets should be of the correct total thickness to correctly print the highlights. Examine the proof with a glass to make sure the highlights are neither punching nor breaking. A .005" sheet and a .010" sheet will usually be about right. Next take two proofs, one each on stock identical with the two sheets under the plate. Holes for the plate pins are cut in the lighter sheet to locate this base sheet under the plate. The entire subject is cut out of the heavier sheet and this is pasted in register on the base sheet to act as a relief for the frisket.

OPERATION AND MAINTENANCE INSTRUCTIONS

INSTALLATION

Uncrate the press and remove all protective paper. Leave the press on its skids until it has been moved to its approximate location. Clean thoroughly, particularly all machined surfaces, using kerosene and rags. Remove skids and set press on synthetic rubber pads furnished. Place a precision level on the bed, and level the press by putting metal shims under the rubber pads where necessary. Notice that the leg opposite the feed board end of the press contacts the floor at one point only. After the press is levelled, the screws in the two corners of this leg should be adjusted so that they just touch the floor.

Be sure to check both standard equipment and optional equipment against the parts list which came with your machine.

Assemble the loose parts of the press as follows:

- 1 - Bolt the feed board to the top of the leg casting, using the six hexagon head cap screws furnished.
- 2 - Attach the sheet board assembly to the feed board bracket on the operator's side.
- 3 - Attach the two end board brackets to the leg and the end of the bed with the four hexagon head cap screws furnished. Be sure the bevel gears mesh properly before tightening down the cap screws. Lubricate the bevel gears with a small amount of vaseline.
- 4 - Fasten the metal end board in place with the four flat head screws furnished and the four fillister head screws which pass through the two plate base wedges.

ELECTRICAL CONNECTIONS

Electrical connections should be made according to local code regulations — by an experienced electrician. Be sure that the ink drum rotates counterclockwise when the power lever is in forward position.

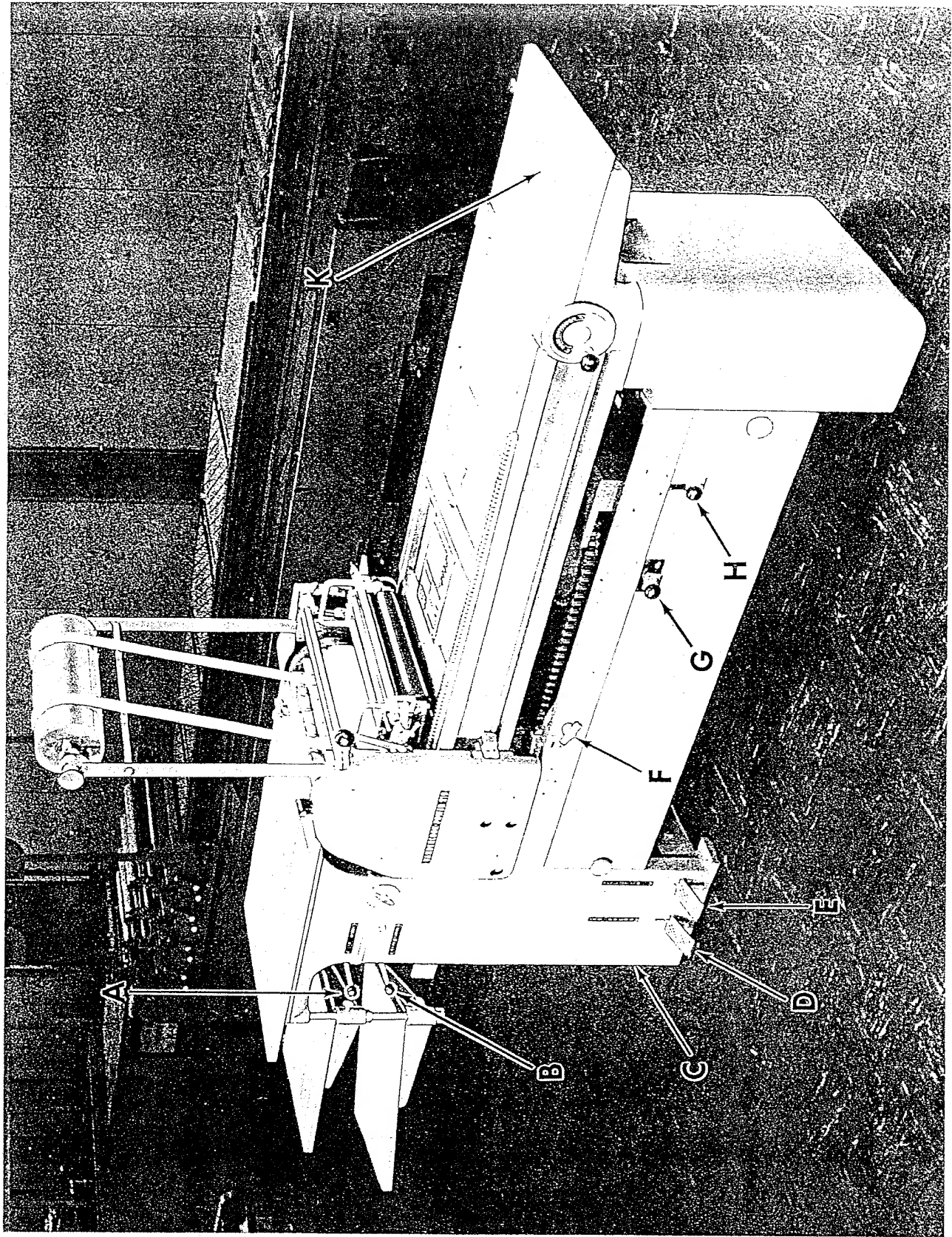


ILLUSTRATION 1

LUBRICATION

For complete instructions on lubrication, refer to the repair parts sheets.

POWER 219 CONTROLS

(Refer to Illustration on Opposite Page)

REVERSE—OFF—FORWARD Lever (B)

Lever "B" controls both the 1/2 h.p. motor for driving the impression cylinder and the 1/6 h.p. motor for driving the ink drum. When this lever is moved all the way to the right, it turns the power on for both motors. When the lever is moved all the way to the left, the cylinder drive motor is reversed, and the motor for the ink drum is turned off. This reverse position is used when packing the cylinder, or for emergencies. The middle position shuts off both motors.

STOP—AUTOMATIC Lever (A)

When lever "A" is in the STOP position — which is all the way to the left — and lever "B" is put in the FORWARD position, the cylinder carriage will move only when the clutch pedal "E" is depressed.

When lever "A" is in AUTOMATIC position, and lever "B" set at FORWARD, depressing the clutch will cause the cylinder to move to the other end and stop, or continue on back to the feed board depending upon how the cylinder stops "G" and "H" have been set. Refer to following paragraph which explains the function of these cylinder stops.

For the sake of safety, keep lever "A" in STOP position before putting lever "B" in either FORWARD or REVERSE. If lever "A" is in AUTOMATIC position and the clutch pedal accidentally depressed before turning on the power, the cylinder carriage will move forward the instant the power is switched on.

Cylinder Stops (G and H)

These stops can be set so that the cylinder travels a short stroke when printing a short form or plate, or the full length of the bed to print the full maximum form length.

The black knob "G" controls the short printing stroke. The black knob "H" is for the full stroke. For short stroke operation, turn knob "G" clockwise and knob "H" counterclockwise. For the full stroke, turn knob "G" counterclockwise and knob "H" clockwise. For a complete printing cycle, such as used with the automatic delivery, both knobs must be turned counterclockwise.

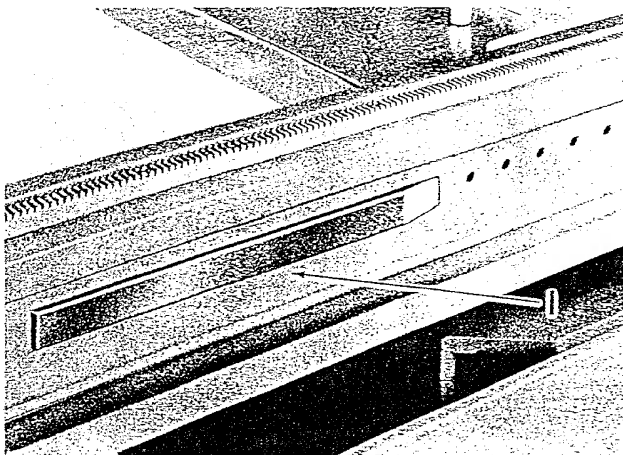
The gripper opener cam "I", which is held in place with spring clips, must be adjusted as follows: When the short travel is to be used, move cam to the position nearest the feed board. For the long travel, move it to the position on the extreme end of the press. For a complete printing cycle, remove it entirely. The gripper opener cam is illustrated below.

Gripper Pedal (D)

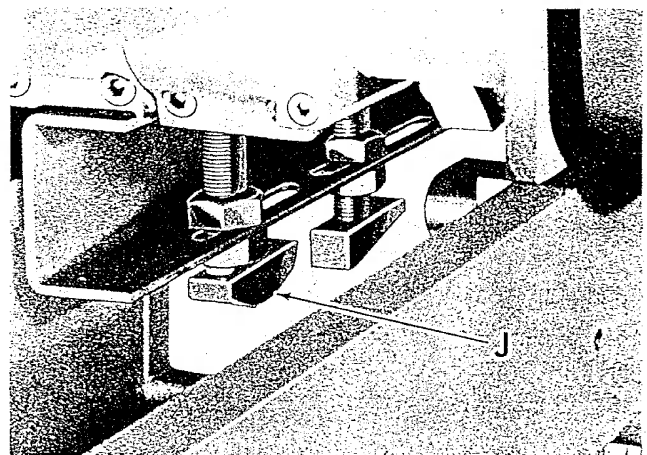
This pedal (see "D" in Illustration 1) serves two purposes. It opens the grippers for feeding a sheet when the cylinder carriage is at the feed board, and it actuates a cam which sets the cylinder to go on impression just before it reaches the printing area. However, if the operator does not want the cylinder to go on impression after the gripper pedal is depressed, the cylinder can be put back on TRIP by means of the manual control "F".

Speed Regulator (C)

The speed of the cylinder carriage is controlled by hand wheel "C" (Illustration 1) located below the feed board, just above the floor level. Speed can be varied from nine to eighteen cycles per minute. Adjusting the speed should be done while motor is running. After the speed has been adjusted from Fast to Slow, the cylinder may stop short — in which case an adjustment will be necessary to bring it up to the feed board. To make this adjustment so that the cylinder stops at the proper distance — about 1-3/16" from the feed board edge — the cylinder stop cam "J" (see illustration below) must be adjusted. To make this adjustment, remove the long sheet metal guard by unscrewing the knobs at each end and, with cylinder carriage in center of bed, the stop cam can be reached under the cylinder carriage with the special wrench furnished. If the cylinder carriage stops short, move cam to the right; if the cylinder moves up to and then away from the feed board before stopping, move cam to the left.



GRIPPER OPENER CAM



CYLINDER STOP CAM

CYLINDER PACKING

The cylinder is undercut to provide .040" hard packing. Five manila undersheets and one manila drawsheet are sufficient (.036") since machine has adjustable bed and the printing surface can be raised to provide sufficient squeeze for obtaining a good impression.

The procedure for putting on new cylinder packing is as follows:

- 1 - With cylinder at the feed board, release the gripper bar by partly unscrewing the five screws on the front of the bar.
- 2 - Carefully fold back along the line scored at the square edge of the drawsheet and insert the edge folded back behind the loose gripper bar.
- 3 - While holding drawsheet in place (centered between the bearers) tighten the center screw on gripper bar, and then the remaining four screws.
- 4 - Insert five undersheets under the drawsheet, making certain they are lined up with each other.
- 5 - With REVERSE-OFF-FORWARD lever in FORWARD position, and the STOP-AUTOMATIC lever in STOP position, depress the clutch pedal lightly until the cylinder carriage moves forward. Keep the cylinder moving forward — with your left hand on the packing to hold it against the cylinder — until the cylinder has made a complete revolution and the reel rod is accessible.
- 6 - Remove the reel rod clamp and place it into the holes punched in the flap of the drawsheet; then snap it back into place on the reel rod.
- 7 - Wind the reel rod counterclockwise, by hand, and engage the pawl. Then, using the 3/4" open end wrench furnished, tighten the reel rod sufficiently to remove any slack in the drawsheet.
- 8 - Check drawsheet at the gripper edge to make certain it is drawn down evenly on both sides. If any bulges or wrinkles appear, release the pawl so that the reel rod and the drawsheet can be shifted toward one side or the other in order to correct the wrinkled condition.

THE INKING SYSTEM

As shown in Illustrations 2 (below) and 3 (on opposite page), the Power 219 inking system includes two 3" form rollers, two steel riders and one steel vibrator combined with an ink drum, one rubber vibrator and one steel rider roller.

Ink can be applied in one of two ways. First, by moving the cylinder carriage away from the feed board and applying it directly to the ink drum rider roller, as in Illustration 3 on Page 9. When ink is added in this manner, however, always turn off the power. After ink has been applied, the power can again be turned on, the cylinder carriage returned to the feed board, and the form rollers lowered to distribute the ink throughout the inking system.

The second method of adding ink is when cylinder is at the feed board by (1) raising form rollers, (2) applying ink to the steel vibrator and then (3) lowering form rollers to contact ink drum and distribute ink.

Whenever a clean form is being inked for the first time, it may require an additional roll up of ink in order to get a satisfactory proof; thereafter, one roll up is sufficient to get good proofs on the average form.

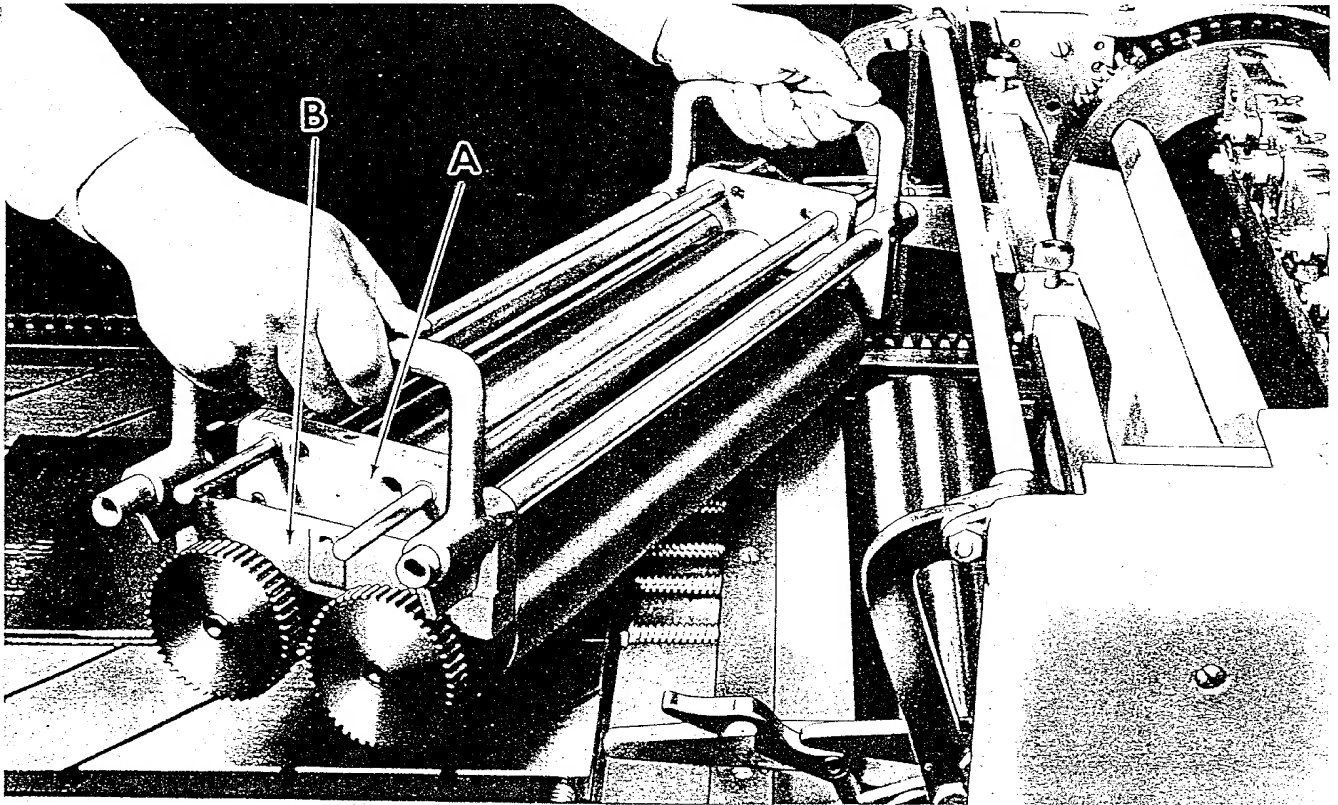


ILLUSTRATION 2

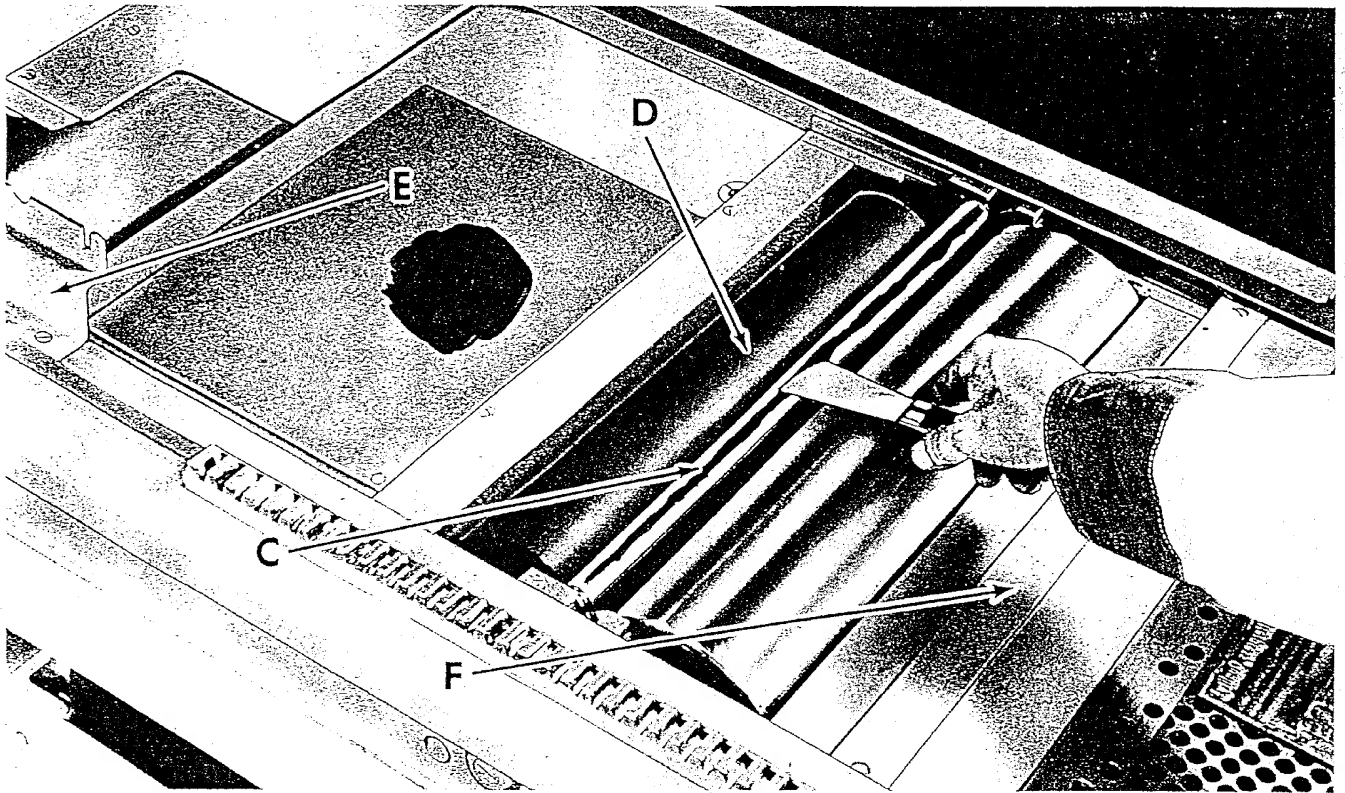


ILLUSTRATION 3

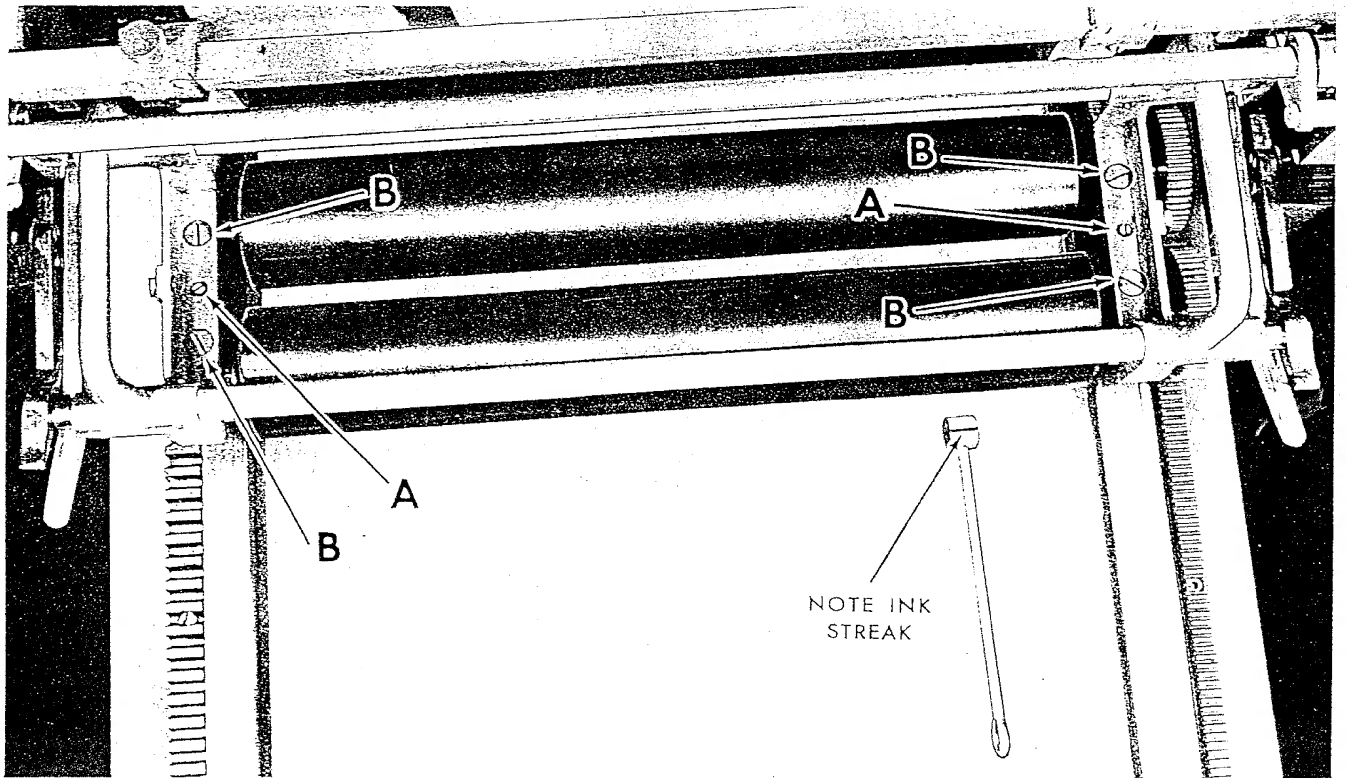


ILLUSTRATION 4

Form Roller Height Adjustment

Form rollers are properly adjusted before shipment. However, the adjustment should be checked with the setting gauge furnished with the press before putting the machine into service, since even synthetic rollers change slightly in size.

To check form rollers, the press should first be inked up and allowed to run for a few minutes so as to get a thorough coverage of ink on both form rollers. Then, with the form rollers down, make a check with the Vandercook Roller Setting Gauge. Check one roller at a time — at both ends and in the center.

Place the setting gauge on the bed of the press — as shown in illustration at bottom of Page 9 — and slide it beneath the end of the roller to be adjusted. When the gauge has passed under the roller, turn it sideways and withdraw it so that you can see the ink streak on the gauge, as shown in the illustration. A streak $1/16$ " wide is the correct setting in most cases when synthetic rollers are being used. For glue composition rollers, a $1/8$ " wide streak is better to properly ink a form or plate.

When a check of each roller with the setting gauge shows that the form rollers are not properly adjusted, reset them as follows:

- 1 - Remove the top frame assembly "A" (Illustration 2)
- 2 - With form rollers down and in inking position, loosen set screws "A" (Illustration 4)
- 3 - Adjust each form roller at both ends (either up or down) by turning the slotted flat head screws "B" (Illustration 4). Turning the screws clockwise brings the form roller up; counterclockwise lowers it. Check with Roller Setting Gauge as explained above, and lock position with set screws "A".

Care of Form Rollers

To get the maximum life and performance out of form rollers, they should be kept clean when not in use. It is a wise policy not to allow ink to dry or remain over night on form rollers, but to clean them thoroughly at the end of each day. Ink that is allowed to dry will form a glaze on the rollers, which results in inadequate inking. When press is to remain idle for more than an hour, form rollers should be raised by means of the hand lever provided for this purpose. Raising the rollers in this manner prevents them from being marked by contact with the top frame or ink drum. When glue composition rollers are to be out of use for a day or more, it is advisable to coat them with a good grade of machine oil.

Replacing Form Rollers

Remove both top frame assembly "A" and lower frame assembly "B" (Illustration 2). Then, lay lower frame assembly upside down on the end board, and proceed as follows:

- 1 - Loosen the set screws "A" (Illustration 5 at bottom of page) in the hub of both form roller gears with the hexagon wrench furnished, and remove both gears.
- 2 - Remove the Woodruff Keys in the end of each form roller shaft and install them in the shaft of the new form rollers.
- 3 - Remove the four cap screws "B" (Illustration 5) with hexagon heads on top of the form roller bearings, using the 1/2" open end wrench furnished. This makes it possible to split the form roller bearing blocks in half so that the old rollers can be removed.
- 4 - Remove split Nyliner bearings at both ends of each roller and transfer these to the new rollers. If Nyliner bearings become worn, they should be replaced and lubricated with S.A.E. #40 motor oil.
- 5 - Replace both upper halves of the roller bearing blocks and screw down tight with the four cap screws. However, be sure that the two bearing retainers are in place on the bearing block at end opposite the form roller gears. Finally, check each roller by revolving it by hand to make certain each rolls freely.

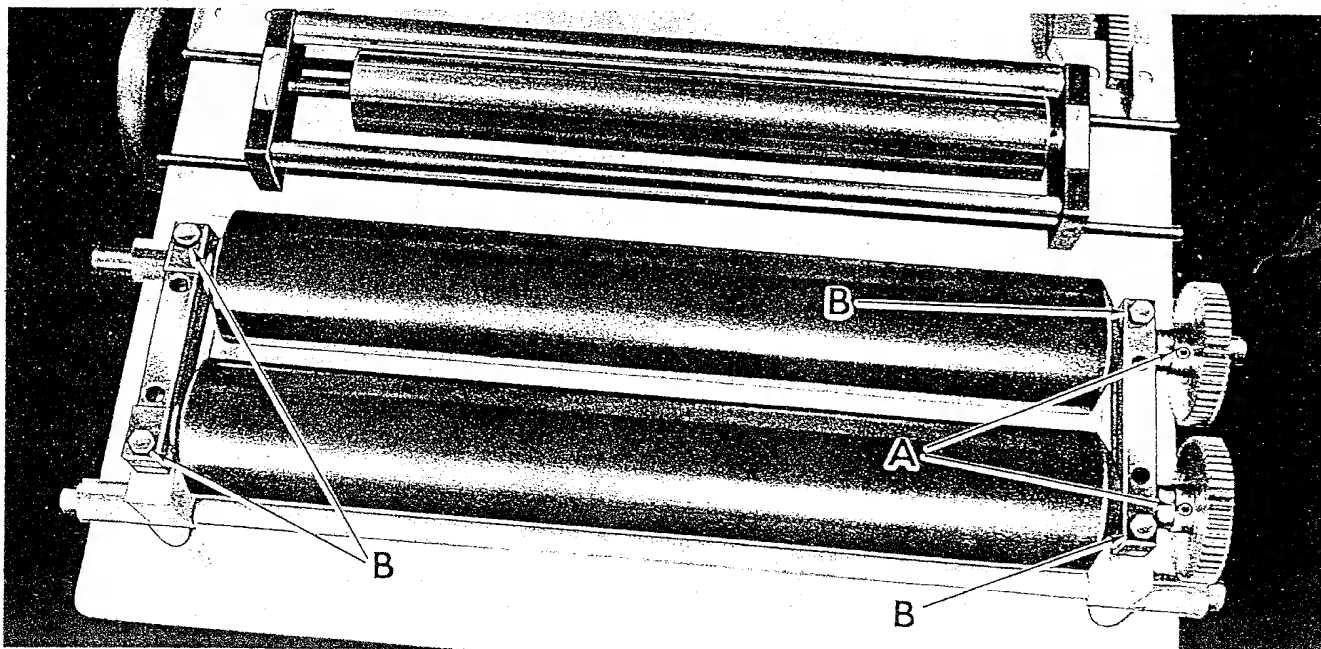


ILLUSTRATION 5

Washup

The most efficient way to wash up the press is (1) run the cylinder carriage to the center of the bed, (2) remove the top frame "A" and lower frame "B" assemblies (Illustration 2), and (3) place both units upside down on the end board "K" (Illustration 1). Wash the ink drum rider "C" and ductor vibrator "D" (Illustration 3) first, and then place them in the rack "E" (Illustration 3), provided for the purpose. Then wash the ink drum by allowing it to rotate while applying a washup rag saturated with solvent. Last, wash the top and lower frame lying upside down on the end board.

ADJUSTABLE BED

Raising or lowering the bed is done by means of the hand wheel "A" at the right end of the bed. The bed can be adjusted over a .24" range, or from .815" to 1.055".

Just inside the bed bearer, near the adjusting wheel, is a dial "B" (Illustration 6) for checking the bed setting. This dial has graduations of .002" arranged in two different scales. One of these scales shows the distance from the top of the bed bearer to the top of the bed; the second scale gives the distance from the top of the bed bearer to the top of the plate base when one is used for proving unmounted plates.

A line extending across the width of both scales shows when the bed is set at .918" (type high). Whenever setting is to be lowered, it is more accurate to bring the bed about .010" below the desired setting and then up to the right setting. For example, suppose the bed is set at .918" and a setting of .921" is desired. The best way to make this adjustment is to bring the bed down to .930" and then back up to .921". This eliminates the possibility of error due to backlash in the gears and threads which raise and lower the bed. This precaution is not necessary when the bed is being raised as, for example, from .918" to .916".

When bed has been adjusted to proper height, tighten the knurled lock screw "C" shown in Illustration 6.

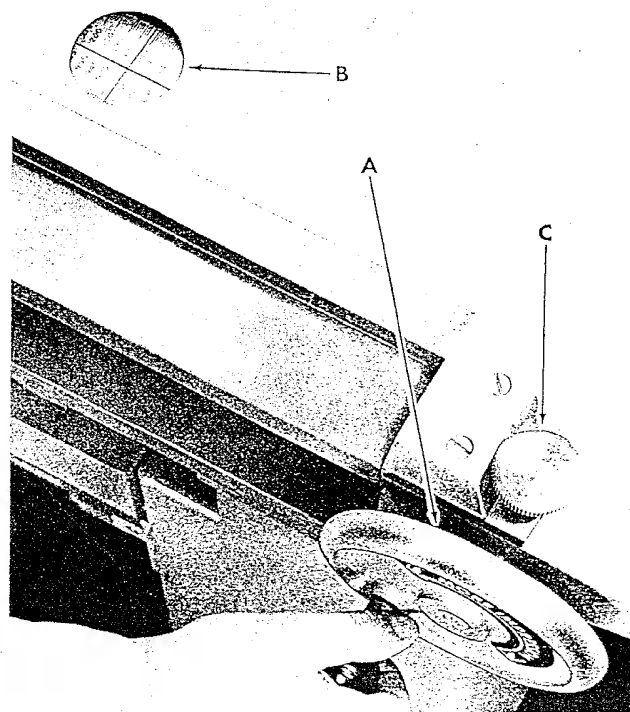


ILLUSTRATION 6

SHEET GUIDES AND SHEET ROLLERS

The end guides "A" (in Illustration 7 below) are located on the gripper bar, and are adjustable. Graduations are scribed on the brass adjusting nuts to permit finer adjustment when close register is involved. A fine line is also scribed on top of the gripper bar for squaring the sheet being proved by adjusting the end guides up to it.

Use only two end guides and the side guide. The side guide "B" is located on the feed board, as indicated below, and is adjusted by releasing the brass screw on top of the guide. Close side guide adjustments are made by turning the brass nut on the back of the side guide.

The sheet guide (nearest the side guide) should always be a trifle in advance of the end guide nearest the operator. This is to prevent misregister because of the sheet dragging against the side guide. The sheet rollers "C" in Illustration 7 should be adjusted so that they run on the margins of the sheet. These sheet rollers are set at the factory at a slight angle so that they will be more effective in holding the sheet tight to the tympan in order to avoid wrinkling and slurring.

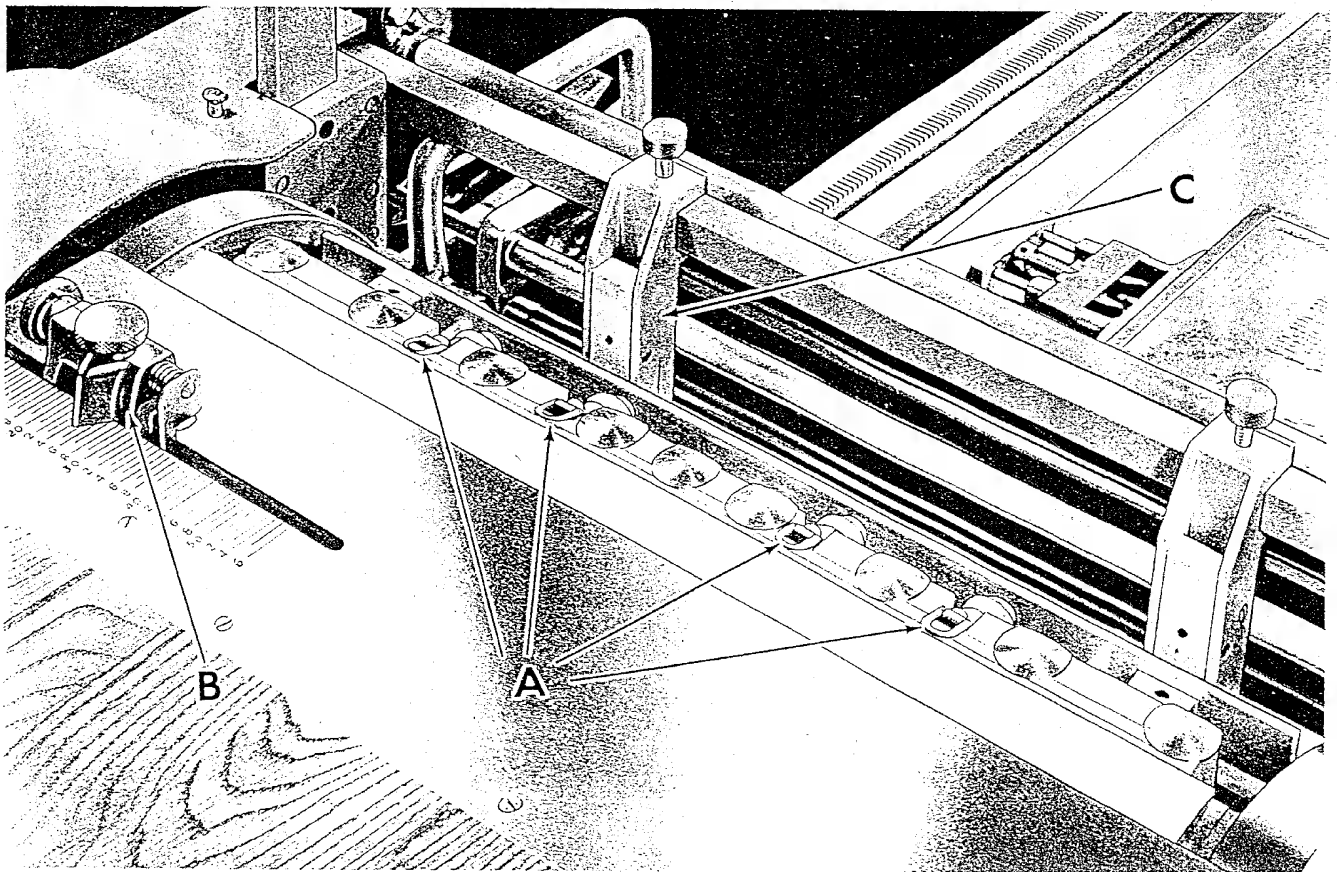


ILLUSTRATION 7

AUTOMATIC FRISKET AND TAPE SHEET DELIVERY

When used to automatically frisket original plates with dead metal and, also, to return the printed sheet to the operator at the feed board, the procedure is as follows:

- 1 - Move the tapes to the extreme edge of the drum and on the cylinder where they are clamped, while the cylinder is at the feed board (see Illustration 8).
- 2 - To adjust the tension on the tapes, turn knurled knob "A" on the drum about three full turns. To equalize the tension on the tapes, pull tab at end of each tape and, at the same time, turn the knurled pin "A" in Illustration 9, which holds the end of the tapes.
- 3 - Attach the cross bar "B" (Illustration 9) to the punched holes in the tapes. If necessary, reduce the tension on the tapes slightly by means of the knurled knob on the drum.
- 4 - Position the plate so that it will print properly on the size of sheet being used.
- 5 - Insert a die cut frisket sheet into the clamp bar "C" (Illustration 9) on the cylinder — with the plastic side of the sheet facing the bed of the press.

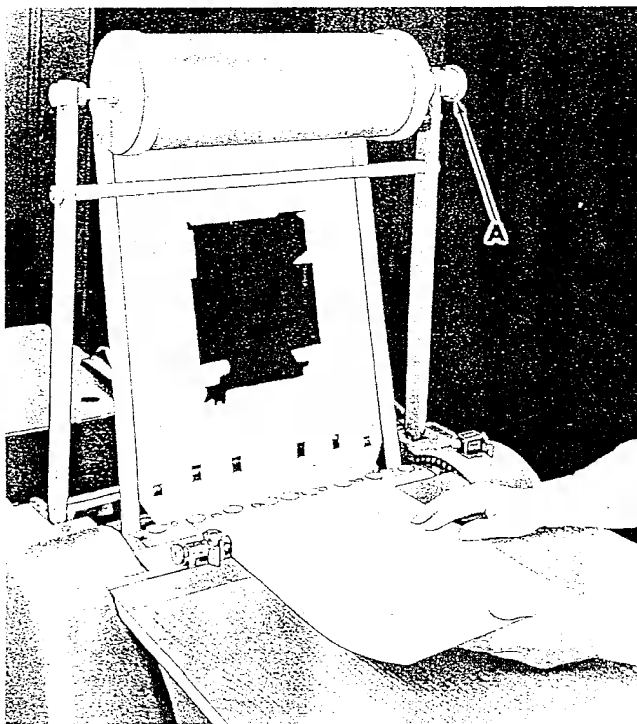


ILLUSTRATION 8

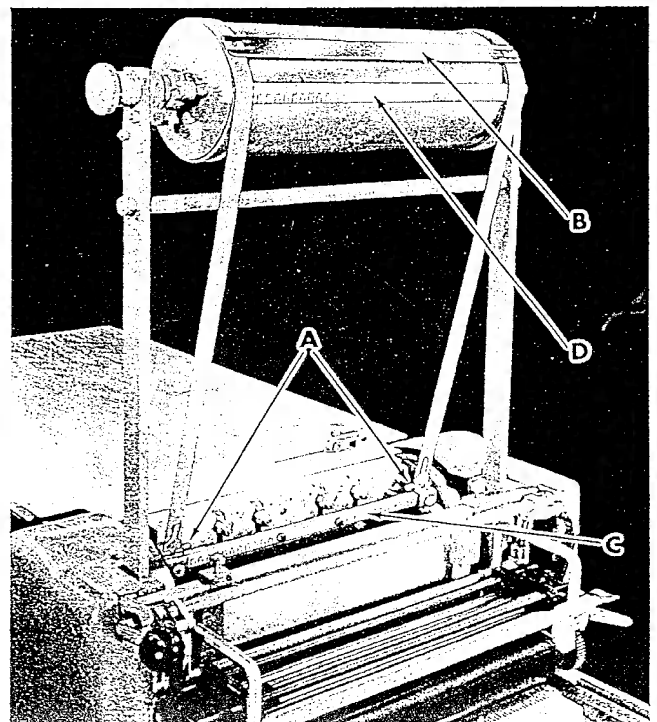


ILLUSTRATION 9

Automatic Frisket and Tape Sheet Delivery (Continued)

- 6 - Move the cylinder carriage away from the feed board until the cross bar has moved away from the drum, and the other end of frisket paper can be attached to the cross bar by means of masking tape or any adhesive type of tape.
- 7 - Run press through one complete cycle and observe how frisket paper is returned to the drum. In case there is any lag or hesitation in the drum taking up the slack in the frisket paper, then more tension must be applied on the drum. To avoid applying too much tension, it is best to make this adjustment when the cylinder carriage is at the opposite end from the feed board.
- 8 - If the press is inked up, pull an impression directly on the frisket paper by moving the cylinder carriage back and forth without feeding a sheet. If the press is not inked up, a sheet of carbon paper should be laid over the plate, with carbon side up, to pull an impression on the frisket paper.
- 9 - After an impression has been made on the frisket paper, it can be readily cut out with a frisket knife or any sharp blade. The recommended method of cutting the frisket is (1) feed a sheet of manila or card stock, (2) trip press, then (3) move cylinder until frisket paper is wrapped around cylinder and the image can be seen to cut out.

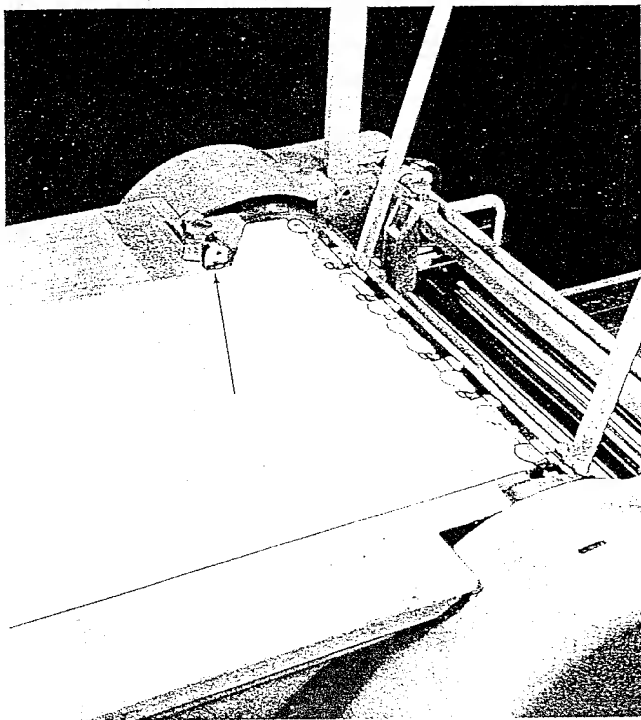


ILLUSTRATION 10

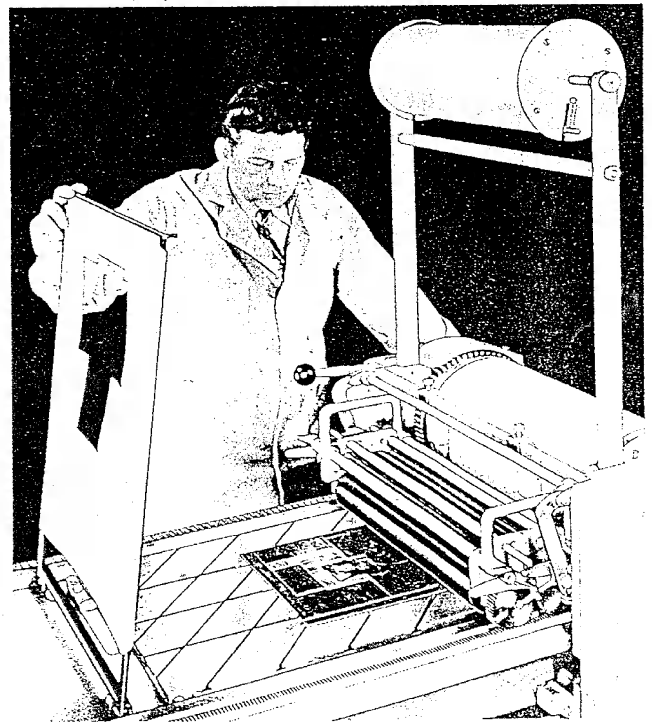


ILLUSTRATION 11

Automatic Frisket and Tape Sheet Delivery (Continued)

When used only as an automatic delivery to return the printed sheet to the operator at the feed board, the cross bar "B" (Illustration 9) is not necessary, and should be removed. After the form has been positioned, the tapes should be adjusted so as to clear the form on both sides when the cylinder goes on impression. To locate tapes accurately, graduations are scribed on the head bar "F" (Illustration 3), on the frisket clamp bar "C", and on tape holding bar "D" in Illustration 9.

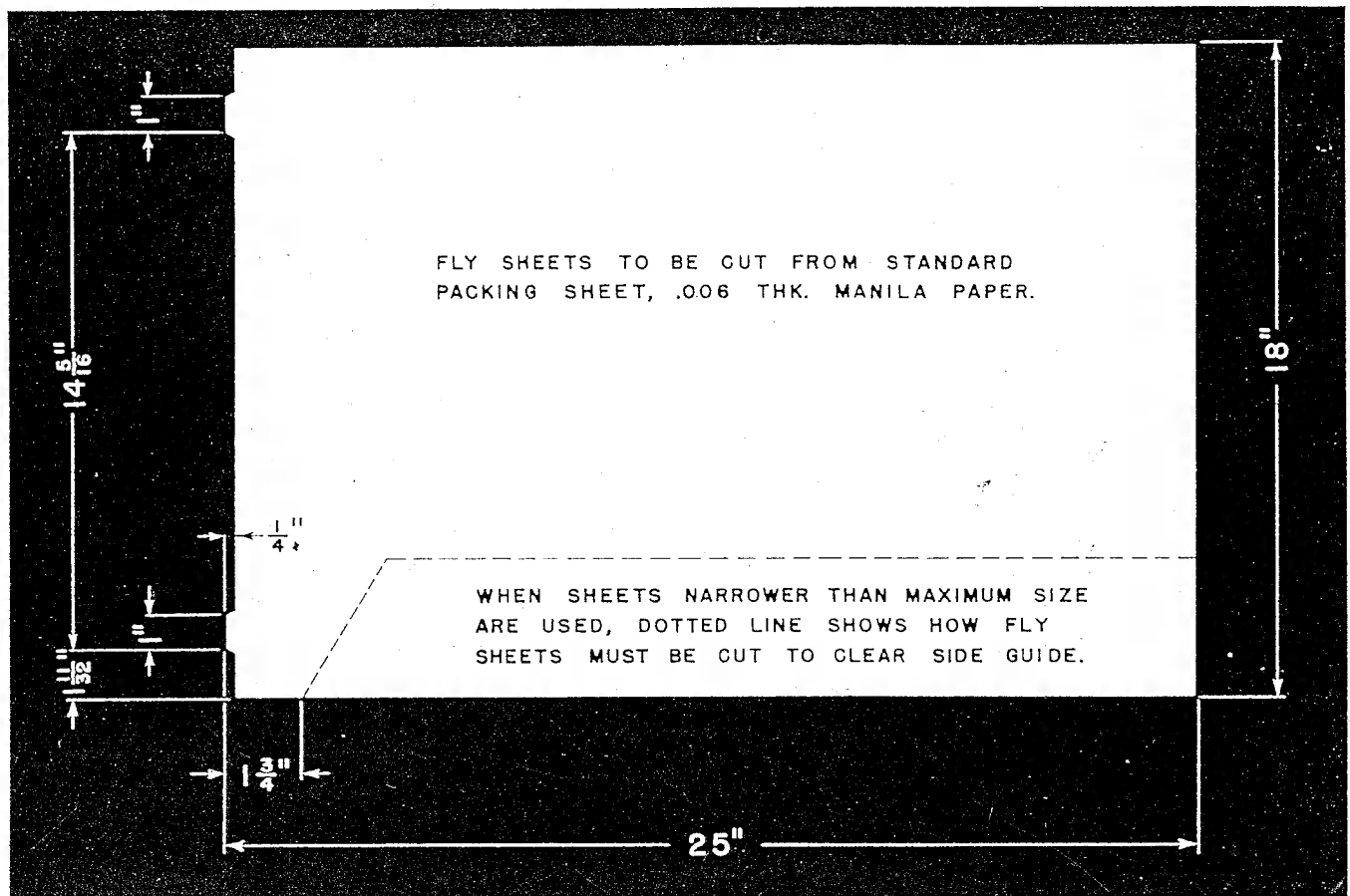


ILLUSTRATION 12

In case the proofed sheet does not properly return to the feed board with the tapes, a fly sheet should be used. For this purpose, an undersheet must be removed from the packing and the fly sheet cut out as per Illustration 12 above and 10 on Page 15, in order for the fly sheet to clear the side guide and end guides. The tabs on the end of the fly sheet are then inserted under the head of the slotted screws located on top of the gripper bar. The sheet to be printed is then fed to the grippers on top of the fly sheet.

Whenever the automatic frisket or tape sheet delivery is used, the gripper opener cam "I" pictured on Page 6 must be removed.

HAND FRISKET

(Refer to Illustration 11 on Page 15)

After the plate has been properly positioned and made ready, attach the frisket frame by inserting the two spring pins into the hole on each side of the bed bearer. Frisket frame should lie flat on the end board. Remove the paper clamps, position the frisket paper under the frisket frame, wrap the ends over side frame, then snap the clamps into place.

To get an impression on the frisket paper, bring the frisket frame over the printing plate after it has been inked, trip the form rollers, and roll over the plate with cylinder on impression. To get the impression, the plate may be inked, or a sheet of carbon used. After the impression has been made on the frisket paper, swing the frame from the plate back to the end board, and cut out the impression with a frisket knife or any sharp blade.

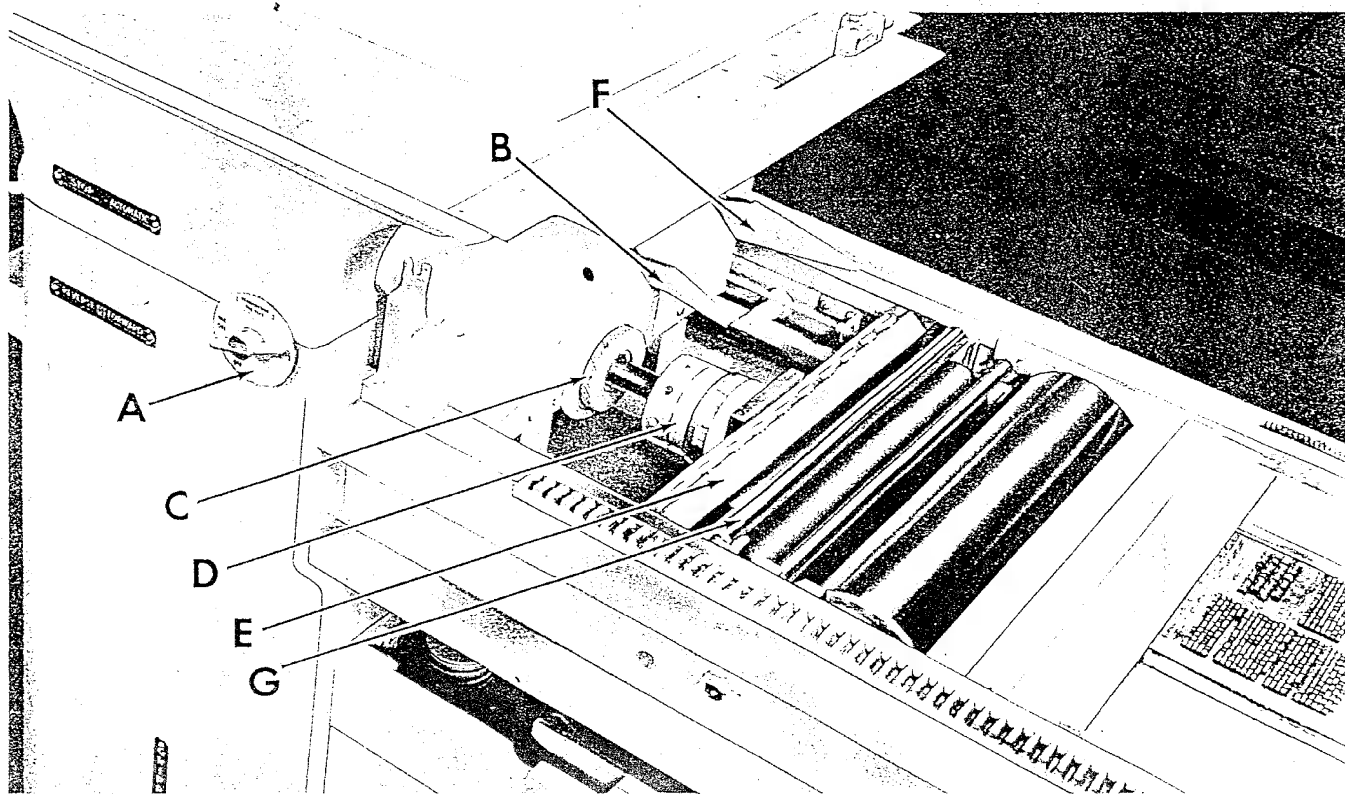


ILLUSTRATION 13 — CONTROLLING FLOW OF INK

THE VANDERCOOK AUTOMATIC INK FEED

The Power 219 Test Presses that are equipped with the Ink Feed are supplied with a can of high grade halftone black installed in the Ink Feed. No. 14, No. 15 or No. 16 One-Pound Seamless Cans must be used.

Controlling Flow of Ink (Illustration 13)

To start flow of ink, turn control knob "A" to the No. 4 position. Push cam "B" up and down by hand to turn the driving screw "C" that forces plunger "D" into the bottom of the can. When ink starts to show on spreader bar "E", run the cylinder carriage back and forth a few times to distribute the ink through the entire inking system. Each time the cylinder comes back to the feed board, cam "B" is depressed, forcing more ink through the spreader bar. Also, cam "F" is depressed, causing roller "G" to pick up the ink from the spreader bar and deposit it on the rubber covered vibrator. Keys in the spreader bar can be adjusted to vary the amount of ink across the spreader bar. Less ink will be forced through the spreader bar when control knob "A" is turned back toward the No. 1 position. When control knob "A" is in the INK-OFF position, no new ink will be fed through the spreader bar. When this knob is in the ROLL-OFF position, roller "G" is held away from the rubber vibrator and the vibrator will not contact the ink drum. This is the correct position when the press is not in operation.

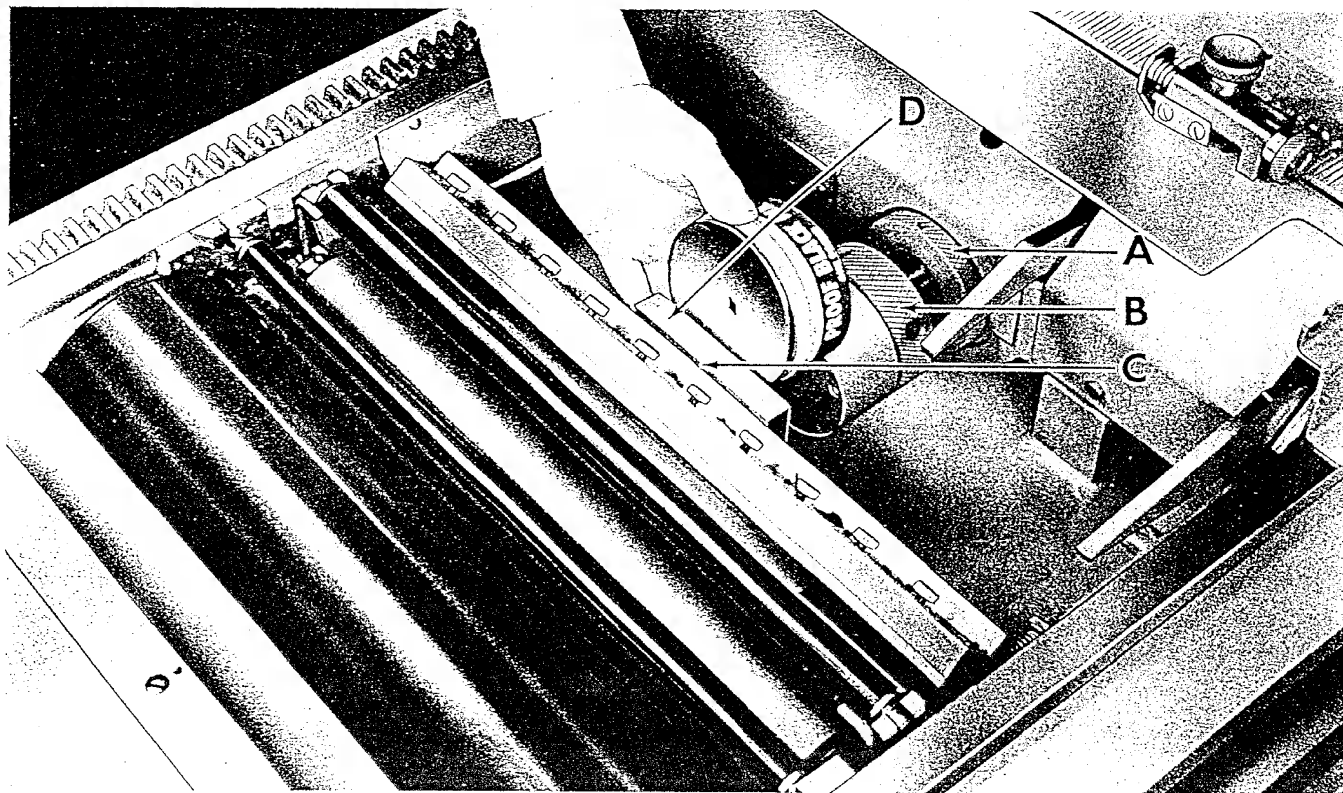


ILLUSTRATION 14 — INSTALLING NEW CAN OF INK

The Vandercook Automatic Ink Feed (Continued)

Installing New Can of Ink (Illustration 14)

When all of the ink has been squeezed out of the can and plunger "D" in Illustration 13 can go no farther, a safety clutch operates and knurled nut "B" will revolve with knurled nut "A" each time the mechanism is indexed. Therefore, there will be no further pressure against the ink can.

To remove the empty ink can, hold knurled nut "A" in Illustration 14 with a 1/4" pin wrench, and turn knurled nut "B" with a 3/8" pin wrench until plunger has backed out of the can. Before inserting a new can of ink into the ink feed, punch a 3/16" hole into the cover, using the special punching device fastened to the underside of the feed board. While the can is still located in the punching device, put a pencil mark on the side of the can nearest the edge of the feed board. It is necessary to line up this mark when inserting the can in the ink feed with mark "C", as the hole is not punched in the center of the cover and the matching hole in the ink feed is also off center. Insert new can in recess in plate "D" and turn knurled nut "B" until plunger "D" (in Illustration 13) contacts the bottom of the ink can.

When the ink feed is not in use, leave a small bead of ink along the entire length of the spreader bar, as this will keep the ink from drying in the slot of the bar. Before the ink feed is used, scrape this bead of ink off with an ink knife.

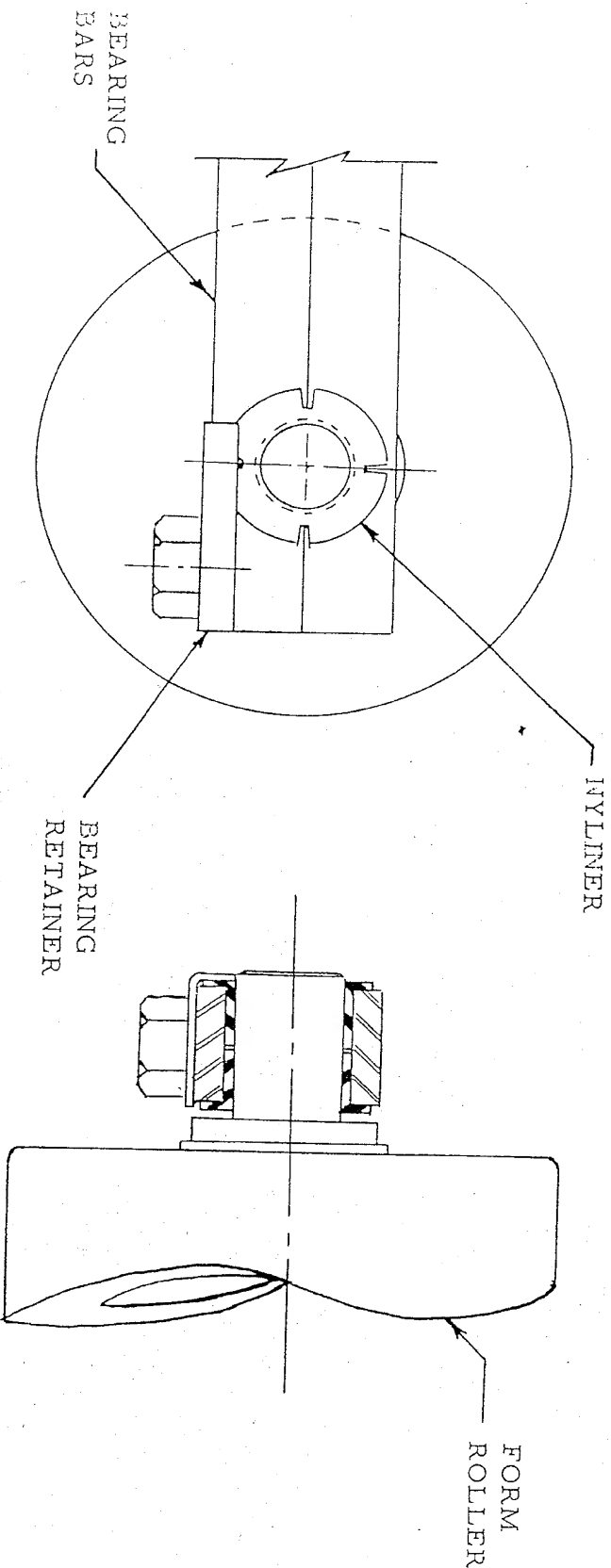
When changing inks, or it becomes necessary to clean the spreader bar, remove the 6 hollow head cap screws across the top of the bar and lift off top section of the spreader bar. If two or more spreader bars are used to eliminate cleaning the spreader bar when changing inks, it is necessary to remove the second hollow head cap screw from each end of the spreader bar in order to change the unit.

Adjusting Form Rollers

Run the cylinder to the open end of the bed and remove the steel distributors. Slide the Vandercook "Nuway" Roller Setting Gauge under the inked rollers near the edges. An ink mark on the gauge $1/16$ " wide indicates when the rollers are correctly adjusted. To adjust rollers, loosen both center set screws at each end of the carriage. Turning the large flat head screws clockwise raises the roller and counter-clockwise lowers the roller. After adjusting both rollers to the correct height, tighten both set screws. The steel distributors require no adjustment.

If you have any questions in regard to the operation of this press, not covered by the directions, write: VANDERCOOK & SONS, INC.
3601 W. TOUHY AVENUE
CHICAGO 45, ILLINOIS.

VIEW SHOWING SIDE
OPPOSITE GEARS



INSTALLATION INSTRUCTIONS

1 - REMOVE BOTTOM HALF OF BEARING BAR.

3 - REPLACE BOTTOM HALF OF BEARING BAR

2 - APPLY NYLINERS TO CORE BEARING DIA.

(A) 4 NYLINERS ARE REQUIRED PER BEARING BAR.
8 PER MACHINE. 2 BEARING RETAINERS ARE
USED ON OPPOSITE GEAR SIDE.

(RETAINERS ARE NECESSARY TO HOLD
NYLINERS IN PLACE.)

(B) ON GEAR SIDE, NYLINERS CAN BE INSERTED BY
SPREADING APART & SLIPPING ON SHAFT.

ON OPPOSITE GEAR SIDE, SLIDE NYLINERS ON
BEARING DIA.

(A) BEFORE REPLACING HEX HEAD SCREWS
TO BEARING BARS ON OPPOSITE GEAR
SIDE, SLIP BOLT THRU RETAINER, THEN
TIGHTEN.

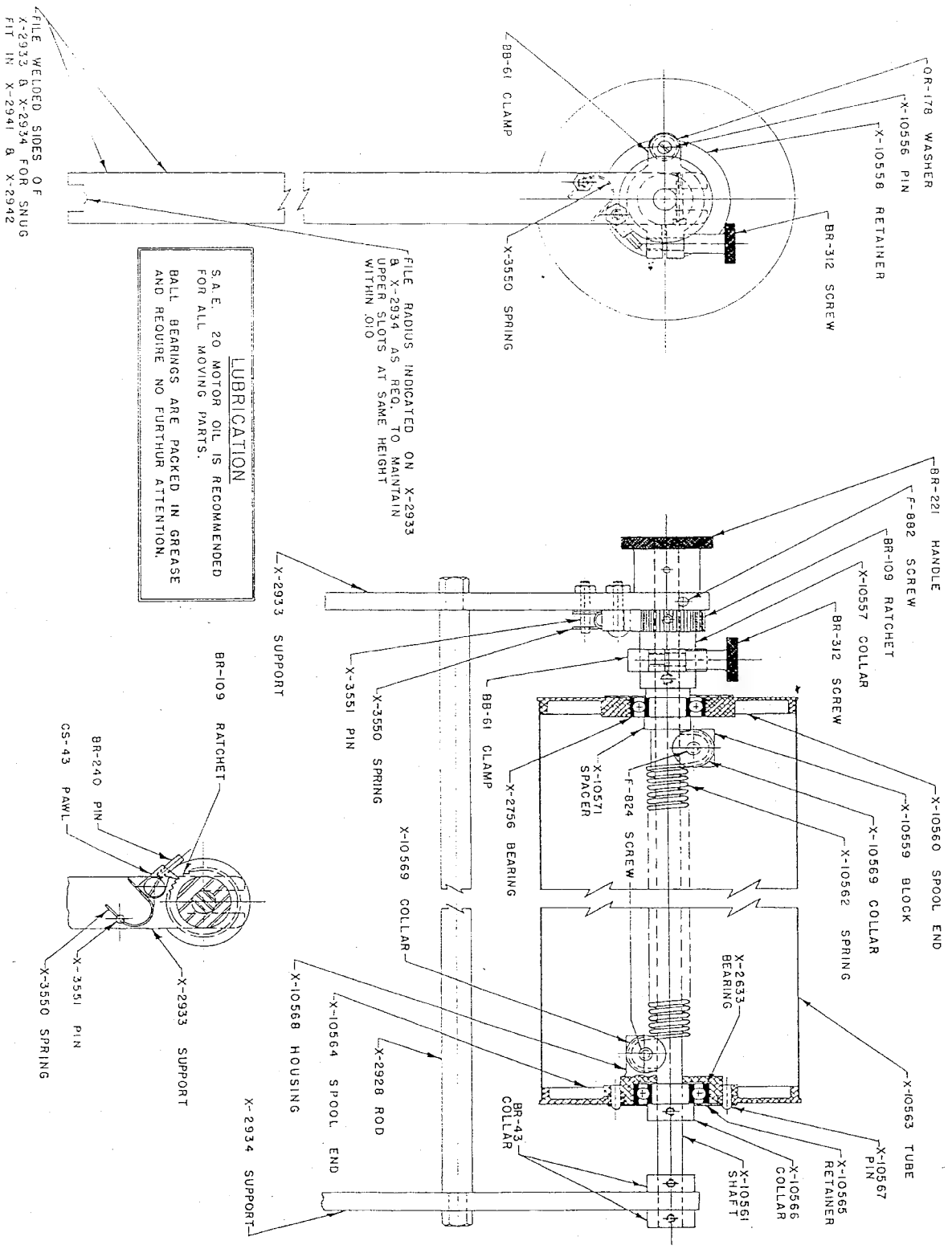
4 - LUBRICATION - WHEN NYLINERS ARE BEING
INSTALLED, LUBRICATE WITH S.A.E. #40
MOTOR OIL.

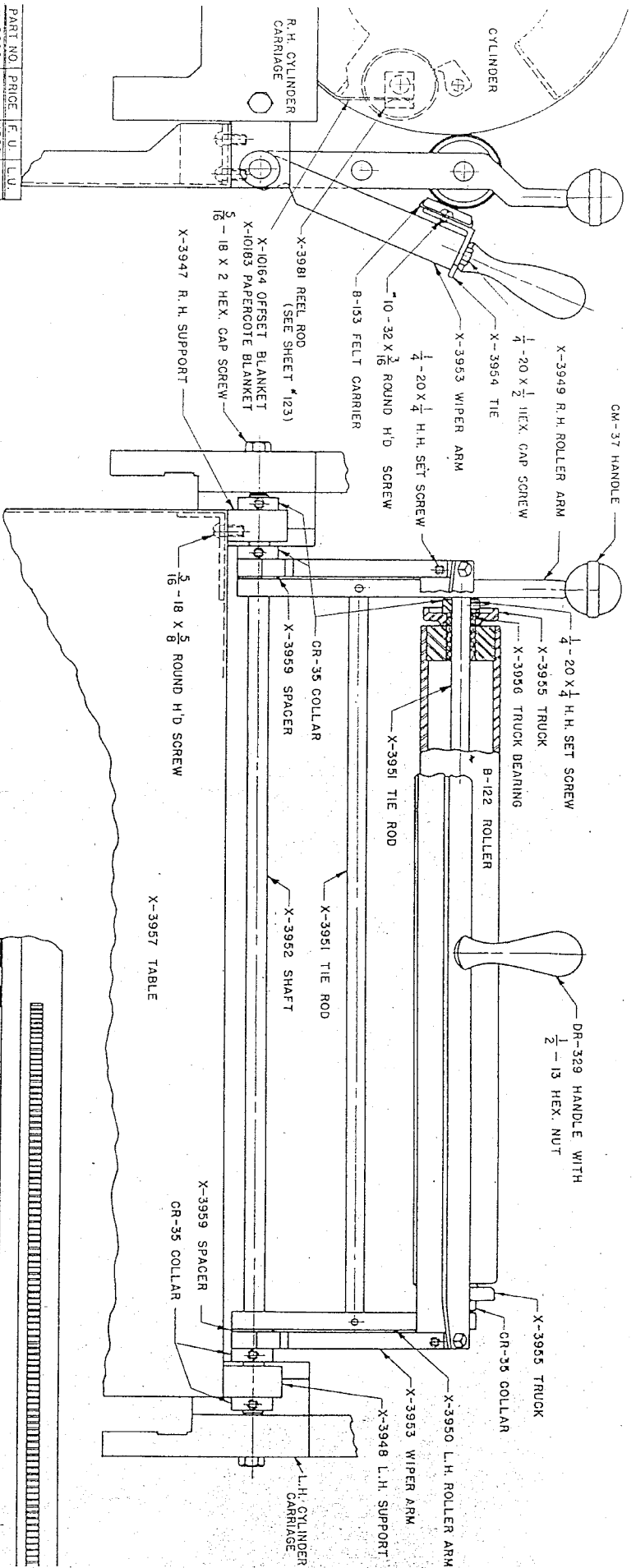
VANDERCOOK NYLINERS

FORM NO. 182B

SHEET NO. 182B

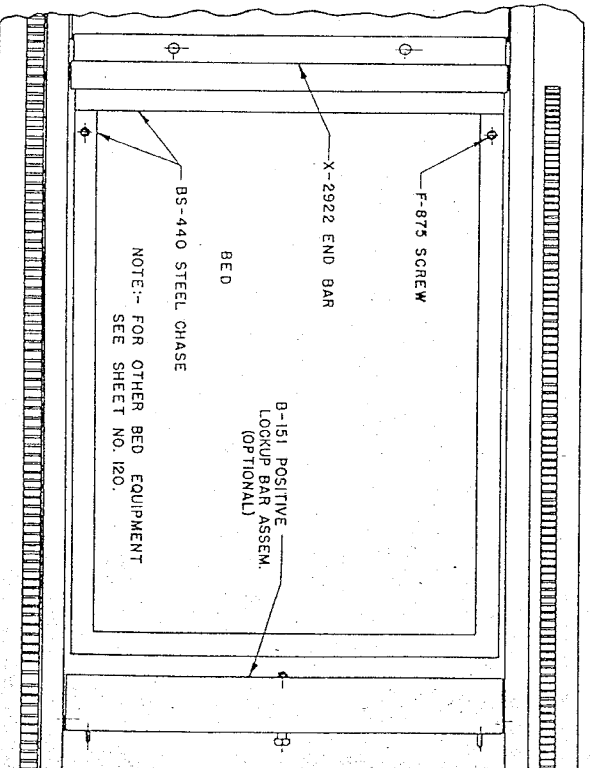
PART NO.	PRICE	F U	L U
X-2933	17373	"	"
X-2756	"	"	"
X-2928	"	"	"
X-3550	"	"	"
X-3551	"	"	"
X-10556	"	"	"
X-10557	"	"	"
X-10558	"	"	"
X-10559	"	"	"
X-10560	"	"	"
X-10561	"	"	"
X-10562	"	"	"
X-10563	"	"	"
X-10564	"	"	"
X-10565	"	"	"
X-10566	"	"	"
X-10567	"	"	"
X-10568	"	"	"
X-10569	"	"	"
X-10571	"	"	"
BB-61	"	"	"
BR-43	"	"	"
BR-109	"	"	"
BR-221	"	"	"
BR-240	"	"	"
BR-312	"	"	"
CS-43	"	"	"
QR-178	"	"	"



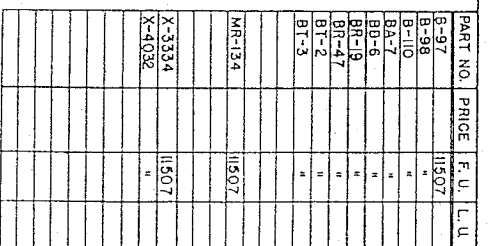


PART NO.	PRICE	F. U.	L. U.
X-3947	11507		
X-3948	"		
X-3949	"		
X-3950	"		
X-3951	"		
X-3952	"		
X-3953	"		
X-3954	"		
X-3955	"		
X-3956	"		
X-3957	"		
X-3958	"		
X-3959	"		
X-3960	"		
X-3961	"		
X-3962	"		
X-3963	"		
X-3964	"		
X-3965	"		
X-3966	"		
X-3967	"		
X-3968	"		
X-3969	"		
X-3970	"		
X-3971	"		
X-3972	"		
X-3973	"		
X-3974	"		
X-3975	"		

LUBRICATION
OIL ALL MOVING PARTS EVERY WEEK
WITH A FINE GRADE MACHINE OIL-SAE 20

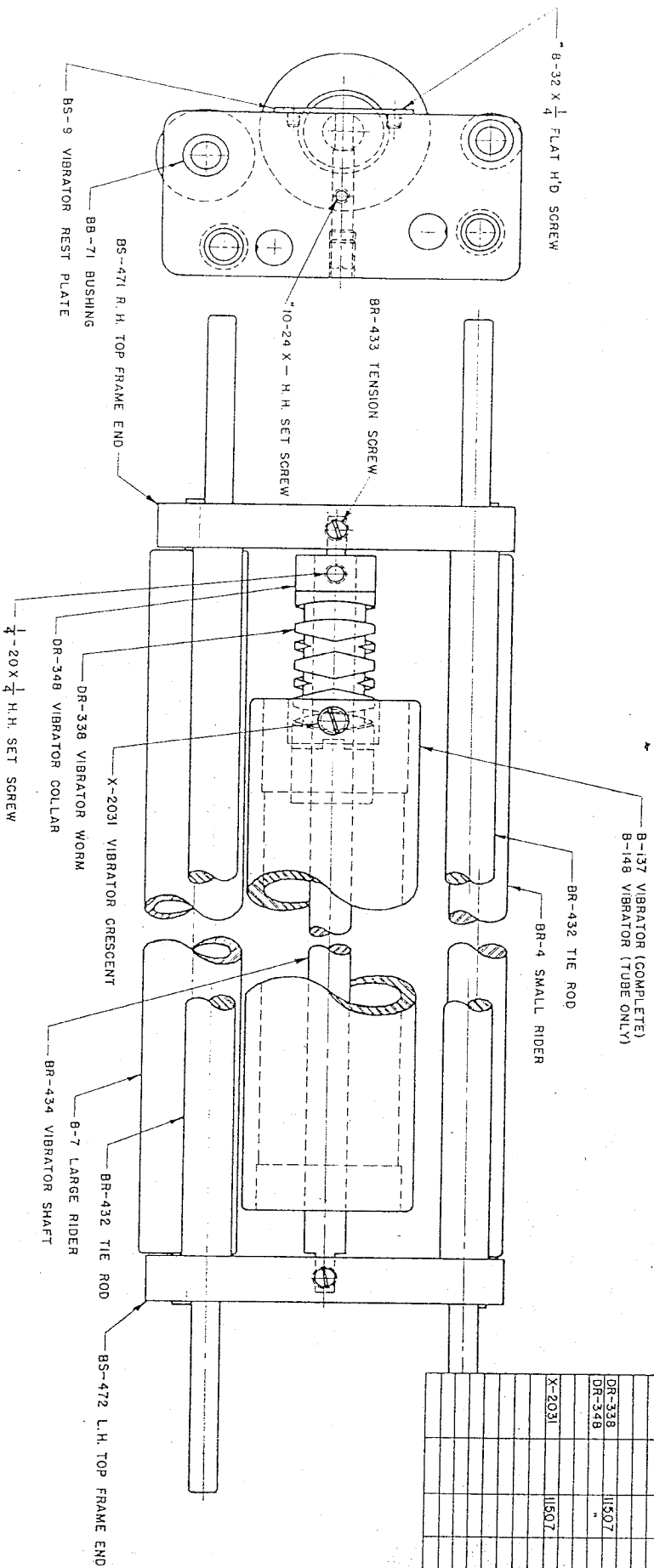


RECOMMENDATION
S. A. E. *40 MOTOR OIL IS RECOMMENDED FOR ALL MOVING PARTS. NOTE TWO OIL HOLES IN EACH FORM ROLLER BEARING BB-6 -- OIL DAILY.



SHEET NO. 127

PART NO.	PRICE	F. U.	L. U.
B-7		11507	
B-137		"	"
B-148		"	"
BB-71		"	"
BR-471		"	"
BR-432		"	"
BR-433		"	"
BR-434		"	"
BS-9		"	"
BS-471		"	"
BS-472		"	"
DR-338		11507	
DR-349		"	"
X-2031		11507	



LUBRICATION

SAE #10 MOTOR OIL IS RECOMMENDED FOR ALL MOVING PARTS. NOTE TWO OIL HOLES IN END PLATES BS-471 & BS-472 - OIL DAILY. KEEP VIBRATOR WORM DR-338 THOROUGHLY COVERED WITH VASELINE AT ALL TIMES.



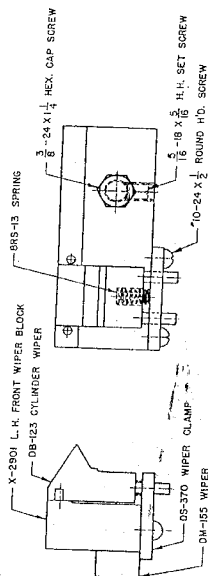
X-2031 VIBRATOR CRESCENT

B-131 TOP FRAME ASSEMBLY NO. 219 VANDERCOOK PROOF PRESS

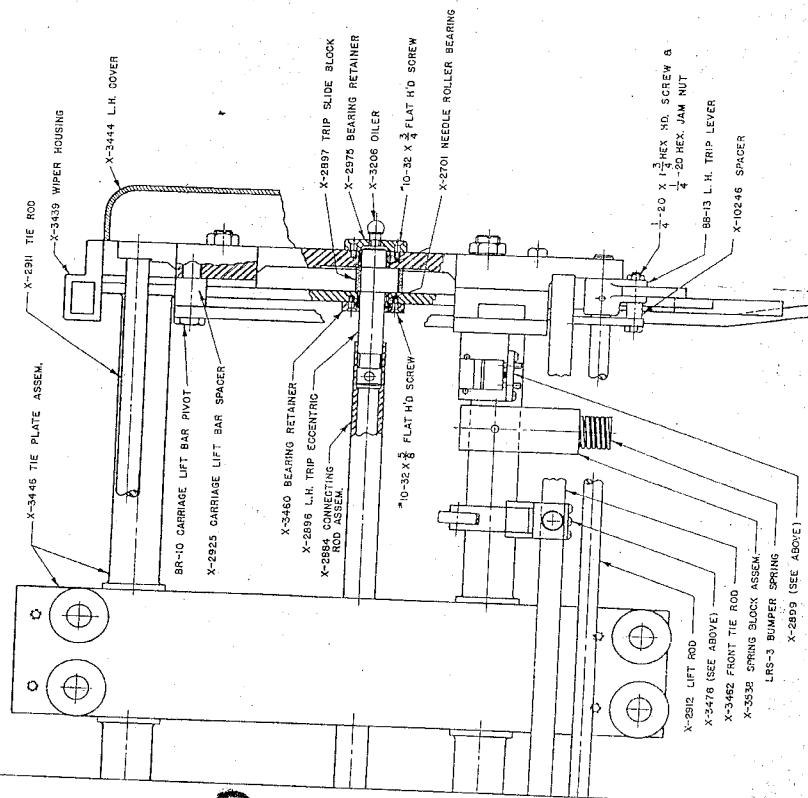
F. U. 11507

LUBRICATION

* 20 MOTOR OIL IS RECOMMENDED FOR ALL MOVING PARTS. NOTE OILER X-2006, FILL WEEKLY.
A LIGHT FILM OF OIL SHOULD BE KEPT AT ALL TIMES ON THE SURFACE OF IMPRESSION WHEELS.
ALL BALL BEARINGS ARE PACKED IN GREASE AND REQUIRE NO FURTHER ATTENTION.



X-2905 L.H. FRONT WIPER ASSEMBLY



F. U. 11507

L.H. CYLINDER CARRIAGE NO. 219 VANDERCOOK PROOF PRESS

SHEET NO. 125

PART	NO.	PRICE	F. U.	L. U.
X-2901	1	11.00		
X-2902	1	11.00		
X-2903	1	11.00		
X-2904	1	11.00		
X-2905	1	11.00		
X-2906	1	11.00		
X-2907	1	11.00		
X-2908	1	11.00		
X-2909	1	11.00		
X-2910	1	11.00		
X-2911	1	11.00		
X-2912	1	11.00		
X-2913	1	11.00		
X-2914	1	11.00		
X-2915	1	11.00		
X-2916	1	11.00		
X-2917	1	11.00		
X-2918	1	11.00		
X-2919	1	11.00		
X-2920	1	11.00		
X-2921	1	11.00		
X-2922	1	11.00		
X-2923	1	11.00		
X-2924	1	11.00		
X-2925	1	11.00		
X-2926	1	11.00		
X-2927	1	11.00		
X-2928	1	11.00		
X-2929	1	11.00		
X-2930	1	11.00		
X-2931	1	11.00		
X-2932	1	11.00		
X-2933	1	11.00		
X-2934	1	11.00		
X-2935	1	11.00		
X-2936	1	11.00		
X-2937	1	11.00		
X-2938	1	11.00		
X-2939	1	11.00		
X-2940	1	11.00		
X-2941	1	11.00		
X-2942	1	11.00		
X-2943	1	11.00		
X-2944	1	11.00		
X-2945	1	11.00		
X-2946	1	11.00		
X-2947	1	11.00		
X-2948	1	11.00		
X-2949	1	11.00		
X-2950	1	11.00		
X-2951	1	11.00		
X-2952	1	11.00		
X-2953	1	11.00		
X-2954	1	11.00		
X-2955	1	11.00		
X-2956	1	11.00		
X-2957	1	11.00		
X-2958	1	11.00		
X-2959	1	11.00		
X-2960	1	11.00		
X-2961	1	11.00		
X-2962	1	11.00		
X-2963	1	11.00		
X-2964	1	11.00		
X-2965	1	11.00		
X-2966	1	11.00		
X-2967	1	11.00		
X-2968	1	11.00		
X-2969	1	11.00		
X-2970	1	11.00		
X-2971	1	11.00		
X-2972	1	11.00		
X-2973	1	11.00		
X-2974	1	11.00		
X-2975	1	11.00		
X-2976	1	11.00		
X-2977	1	11.00		
X-2978	1	11.00		
X-2979	1	11.00		
X-2980	1	11.00		
X-2981	1	11.00		
X-2982	1	11.00		
X-2983	1	11.00		
X-2984	1	11.00		
X-2985	1	11.00		
X-2986	1	11.00		
X-2987	1	11.00		
X-2988	1	11.00		
X-2989	1	11.00		
X-2990	1	11.00		
X-2991	1	11.00		
X-2992	1	11.00		
X-2993	1	11.00		
X-2994	1	11.00		
X-2995	1	11.00		
X-2996	1	11.00		
X-2997	1	11.00		
X-2998	1	11.00		
X-2999	1	11.00		
X-3000	1	11.00		

